

WHAT IS CLAIMED IS:

1. A body part immobilization apparatus, comprising:
one or more side blocks for securing at least one side of a body part, the one or more side blocks having respective positional engagement means; and
a base for mounting the one or more side blocks, said base having adjustable engagement means;
respective attachment means for adjustably attaching each of the one or more side blocks to the base by engaging the adjustable engagement means and the respective positional engagement means,
wherein the one or more side blocks are adjustable laterally and longitudinally on the base by moving the respective attachment means along the respective positional engagement means and the adjustable engagement means, and
the one or more side blocks are adjustable rotationally by rotating the one or more side blocks around the respective attachment means.
2. The body part immobilization apparatus of claim 1, and further comprising:
a spine board; and attaching means for attaching the base to the spine board.
3. The body part immobilization apparatus of claim 2, wherein said attaching means is formed by at least two aperture means on opposite ends of the base for securing opposite ends of a strap that loops around the spine board on an underside thereof.
4. The body part immobilization apparatus of claim 1, wherein the adjustable engagement means is formed by at least one elongated track disposed on either side of a portion of the base corresponding to a center of the body part.
5. The body part immobilization apparatus of claim 4, wherein the at least one elongated track extends to an edge of the base.

6. The body part immobilization apparatus of claim 4, wherein the at least one elongated track extends horizontally from the sides of the body part.
7. The body part immobilization apparatus of claim 4, wherein at least one of the respective attachment means is formed by a sliding attachment device having a top portion and a bottom portion, wherein the top portion comprises means for engaging the respective positional engagement means and the bottom portion comprises means for engaging the at least one elongated track.
8. The body part immobilization apparatus of claim 7, wherein the at least one elongated track includes a rack of teeth along one or more lengthwise edges thereof, and flexible fingers are disposed on one or more sides of the bottom portion of the sliding attachment device for engaging the rack of teeth along the respective one or more lengthwise edges of the at least one elongated track.
9. The body part immobilization apparatus of claim 8, wherein the top portion of the sliding attachment device comprises a release mechanism for releasing the flexible fingers.
10. The body part immobilization apparatus of claim 7, wherein the respective positional engagement means of the one or more side blocks is formed by an elongated slot.
11. The body part immobilization apparatus of claim 10, wherein:
locking means is formed by a row of teeth along and recessed from one or more of the lengthwise edges of the at least one elongated slot, and
a set of locking teeth is disposed on one or more sides of the top portion of the sliding attachment device for engaging the respective one or more rows of teeth of the locking means.
12. The body part immobilization apparatus of claim 11, wherein the top portion of the sliding attachment device comprises a release mechanism for releasing the set of locking teeth disposed on one or more sides of the top portion of the sliding attachment device.

13. The body part immobilization apparatus of claim 7, wherein the sliding attachment device is formed by a plunger-type lock member.
14. The body part immobilization apparatus of claim 1, further comprising at least one cam lock for locking the respective attachment means.
15. The body part immobilization apparatus of claim 1, wherein the one or more side blocks include arched cutaways for leaving substantial areas of the sides of the body part uncovered.
16. The body part immobilization apparatus of claim 1, wherein the base is a spine board.
17. The body part immobilization apparatus of claim 1, wherein the one or more side blocks each comprise a foam pad for supporting the respective sides of the body part.
18. The body part immobilization apparatus of claim 1, wherein the base comprises a removable foam pad for supporting at least the body part.
19. The body part immobilization apparatus of claim 1, wherein the one or more side blocks comprise:
 - a tape dispenser; and
 - a tape receiver, wherein
 - a tape from the tape dispenser of the one or more side blocks is extendible across the body part to another side block to be attached to the tape receiver thereof.
20. The body part immobilization apparatus of claim 19, wherein the tape dispenser and tape receiver of the one or more side blocks are rotatable so that a surface of the tape is adjustable to a particular angle when extended across the body part.

21. The body part immobilization apparatus of claim 19, wherein the tape dispenser and tape receiver of the one or more side blocks are disposed at particular angles so that a surface of the tape is at a particular angle when extended across the body part.

22. The body part immobilization apparatus of claim 1, wherein a cross section of each of the one or more side blocks is curvilinear with tapered ends.

23. The body part immobilization apparatus of claim 1, wherein the one or more side blocks comprise:

- a body part support portion for supporting the respective sides of the body part;
- an attachment portion having the respective positional engagement means and locking means; and
- a hinge between the body part support and attachment portions for rotating said portions between a non-use position and a use position, wherein
 - in the non-use position a surface of the body part support portion and a surface of the attachment portion are substantially parallel to each other, and
 - in the use position the surfaces are substantially perpendicular to each other.

24. The side block of claim 23, further comprising means for engaging the body part support and attachment portions in the use position.

25. The side block of claim 24, wherein the engaging means is formed by a snap hook and a catch disposed on the body part support and attachment portions respectively.

26. The body part immobilization apparatus of claim 1, wherein the one or more side blocks each comprise strap fastening means for fastening a strap extended across the body part.

27. The body part immobilization apparatus of claim 26, wherein the strap fastening means is rotatable so that a surface of the extended strap is adjustable to a particular angle.

28. The body part immobilization apparatus of claim 27, wherein the strap fastening means is formed by a rotatable rivet.

29. The body part immobilization apparatus of claim 26, wherein the strap fastening means is disposed at a particular angle so that a surface of the extended strap is at said angle.

30. The body part immobilization apparatus of claim 1, wherein one of the lateral, longitudinal, and rotational adjustments for at least one of the one or more side blocks is locked in a first locking stage of the respective attachment means.

31. The body part immobilization apparatus of claim 30, wherein all adjustments for at least one of the one or more side blocks are locked in a second locking stage of the respective attachment means.

32. A side block attachable to a base for forming a body part immobilization apparatus, said side block comprising:
a body part support portion for supporting at least a side of a body part;
an attachment portion having means for attaching to the base; and
a hinge between the body part support and attachment portions for rotating said portions between a non-use position and a use position, wherein
in the non-use position a surface of the body part support portion and a surface of the attachment portion are substantially parallel to each other, and
in the use position the surfaces are substantially perpendicular to each other.

33. The side block of claim 32, further comprising means for engaging the body part support and attachment portions in the use position.

34. The side block of claim 33, wherein the engaging means is formed by a snap hook and a catch disposed on the body part support and attachment portions respectively.

35. The side block of claim 34, further comprising an arched cutaway in the body part support portion for leaving a substantial area of the side of the body part uncovered.

36. The side block of claim 32, further comprising a foam pad attached to the body part support portion for supporting the side of the body part.

37. The side block of claim 32, further comprising a curvilinear cross section with tapered ends.

38. A side block attachable to a base for forming a body part immobilization apparatus for immobilizing a body part, said side block comprising:

a tape dispenser for dispensing a tape extendible across the body part to a corresponding side block attached to the base; and

a tape receiver for receiving a corresponding tape extended across the body part from the corresponding side block.

39. The side block of claim 38, wherein the tape dispenser and tape receiver are rotatable so that a surface of the tape is adjustable to a particular angle when extended across the body part.

40. The side block of claim 38, wherein the tape dispenser and tape receiver are disposed at particular angles so that a surface of the tape is at a particular angle when extended across the body part.

41. A side block attachable to a base for forming a body part immobilization apparatus for immobilizing a body part, said side block comprising:

strap anchor means for anchoring a strap extendible across the body part to a corresponding side block attached to the base; and

strap fastening means for fastening a corresponding strap extended across the body part from the corresponding side block, wherein

the strap anchor means is rotatable so that a surface of the extended strap is adjustable to a particular angle, and

the strap fastening means is adjustable so that a surface of the corresponding strap is adjustable to a corresponding angle to the particular angle for fitting the body part.

42. The side block of claim 41, wherein the strap anchor means is formed by a rotatable rivet.

43. The side block of claim 41, further comprising a curvilinear cross section with tapered ends.

44. A body part immobilization apparatus, comprising:
one or more side blocks for securing at least one side of the body part, the one or more side blocks having respective positional engagement means; and
a spine board for supporting at least a body part at a portion of said spine board, said spine board having adjustable engagement means; and
respective attachment means for adjustably attaching the one or more side blocks to the spine board by engaging the adjustable engagement means and the respective positional engagement means,
wherein the one or more side blocks are adjustable laterally and longitudinally on the spine board by moving the respective attachment means along the respective positional engagement means and the adjustable engagement means, and
the one or more side blocks are adjustable rotationally by rotating around the respective attachment means.

45. The body part immobilization apparatus of claim 44, wherein the adjustable engagement means is formed by at least one elongated track disposed on either side of a portion of the spine board.

46. The body part immobilization apparatus of claim 45, wherein the at least one elongated track extends to an edge of the spine board.

47. The body part immobilization apparatus of claim 45, wherein the at least one elongated track extends horizontally from the sides of the body part.

48. The body part immobilization apparatus of claim 45, wherein at least one of the respective attachment means is formed by a sliding attachment device having a top portion and a bottom portion, wherein the top portion comprises means for engaging the respective positional engagement means and the bottom portion comprises means for engaging the at least one elongated track.

49. The body part immobilization apparatus of claim 48, wherein the at least one elongated track includes a rack of teeth along one or more lengthwise edges thereof, and flexible fingers are disposed on one or more sides of the bottom portion of the sliding attachment device for engaging the rack of teeth along the respective one or more lengthwise edges of the at least one elongated track.

50. The body part immobilization apparatus of claim 49, wherein the top portion of the sliding attachment device comprises a release mechanism for releasing the flexible fingers.

51. The body part immobilization apparatus of claim 48, wherein the respective positional engagement means of the one or more side blocks is formed by an elongated slot.

52. The body part immobilization apparatus of claim 51, wherein:
locking means is formed by a row of teeth along and recessed from one or more of the lengthwise edges of the at least one elongated slot, and
a set of locking teeth is disposed on one or more sides of the top portion of the sliding attachment device for engaging the respective one or more rows of teeth of the locking means.

53. The body part immobilization apparatus of claim 52, wherein the top portion of the sliding attachment device comprises a release mechanism for releasing the set of locking teeth disposed on one or more sides of the top portion of the sliding attachment device.

54. The body part immobilization apparatus of claim 48, wherein the sliding attachment device is formed by a plunger-type lock member.

55. The body part immobilization apparatus of claim 44, further comprising at least one cam lock for locking the respective attachment means.

56. A lock member for securing a side block for supporting at least a side of a body part to a base for mounting the side block, said lock member comprising:

an upper portion including means for adjustably engaging a positional engagement means of the side block; and

a lower portion including means for adjustably engaging at least one elongated track on either side of a center portion of the base, wherein

a direction of adjustment for the upper portion engaging means is independent of a direction of adjustment for the lower portion engaging means.

57. The lock member of claim 56, wherein the engaging means of the upper portion enables the side block to be adjusted longitudinally and rotationally, and the engaging means of the lower portion enables the side block to be adjusted laterally.

58. A body part immobilization apparatus, comprising:
one or more side blocks for securing at least one side of a body part, the one or more side blocks each having a respective elongated slot; and

a base for mounting the one or more side blocks, said base having at least one elongated track corresponding to the one or more side blocks;

respective lock members for adjustably attaching each of the one or more side blocks to the base by engaging the respective elongated slot and the at least one elongated track,

wherein the one or more side blocks are adjustable laterally and longitudinally on the base by moving the respective lock members along the respective elongated slot and the at least one elongated track, and

the one or more side blocks are adjustable rotationally by rotating the one or more side blocks around the respective lock members.

59. A side block attachable to a base for forming a body part immobilization apparatus, said side block comprising:

a body part support portion for supporting at least a side of a body part;

an attachment portion having at least an elongated slot for attaching to the base; and

a hinge between the body part support and attachment portions for rotating said portions between a non-use position and a use position, wherein

in the non-use position a surface of the body part support portion and a surface of the attachment portion are substantially parallel to each other, and

in the use position the surfaces are substantially perpendicular to each other.

60. A side block attachable to a base for forming a body part immobilization apparatus for immobilizing a body part, said side block comprising:

a strap anchor for anchoring a strap extendible across the body part to a corresponding side block attached to the base; and

a strap fastener for fastening a corresponding strap extended across the body part from the corresponding side block, wherein

the strap anchor is rotatable so that a surface of the extended strap is adjustable to a particular angle, and

the strap fastener is adjustable so that a surface of the corresponding strap is adjustable to a corresponding angle to the particular angle for fitting the body part.

61. A body part immobilization apparatus, comprising:

one or more side blocks for securing at least one side of a body part, the one or more side blocks each having a respective elongated slot; and

a spine board for supporting at least a body part at a portion of said spine board, said spine board having at least one elongated track corresponding to the one or more side blocks;

respective lock members for adjustably attaching each of the one or more side blocks to the spine board by engaging the respective elongated slot and the at least one elongated track,

wherein the one or more side blocks are adjustable laterally and longitudinally on the spine board by moving the respective lock members along the respective elongated slot and the at least one elongated track; and

the one or more side blocks are adjustable rotationally by rotating the one or more side blocks around the respective lock members.

62. A lock member for securing a side block for supporting at least a side of a body part to a base for mounting the side block, said lock member comprising:

an upper portion including an upper device for adjustably engaging an elongated slot of the side block; and

a lower portion including a lower device for adjustably engaging at least one elongated track on either side of a center portion of the base, wherein

a direction of adjustment for the upper device is independent of a direction of adjustment for the lower device.